REMARKS

Claims 4-6 and 10-12 are pending in the present application. Applicants have made minor amendments to claims 4-6 and 10-12.

The Examiner has required election in the present application between:

Group I, claims 1-3 and 7-9, drawn to acoustic wave apparatus; and

Group II, claims 4-6 and 10-12, drawn to acoustic wave apparatus having a reflector.

For the purpose of examination of the present application, Applicants elect, with traverse, Group II, claims 4-6 and 10-12.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael K. Mutter (Reg. No. 29,680) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Version With Markings To Show Changes Made

IN THE CLAIMS:

The claims have been amended as follows:

4. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 34° to 41° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalite is set as a surface of said substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of an electrode finger constituting at least a part of said reflector by a wavelength λ of a surface acoustic wave is set in a range of 0.01 to 0.05, and a duty ratio (w/p) of the electrode finger decided based on a width w and an arraying cycle p of the electrode finger is set to the value ranging from 0.6 to just below 1.0.

5. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 35° to 42° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalate is set as a surface of said substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of an electrode finger constituting at least a part of said reflector by a wavelength λ of a surface acoustic wave is set in a range of 0.05 to 0.075, and a duty

ratio (w/p) of the electrode finger decided based on a width w and an arraying cycle p of the electrode finger is set to the value ranging from 0.6 to just below 1.0.

6. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 36° to 43° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalate is set as a surface of said substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of an electrode finger constituting at least a part of said reflector by a wavelength λ of a surface acoustic wave is set in a range of 0.075 to 0.1, and a duty ratio (w/p) of the electrode finger decided based on a width w and an arraying cycle p of the electrode finger is set to the value ranging from 0.6 to just below 1.0.

10. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 34° to 41° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalate is set as a surface of said substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of a part of an electrode finger constituting a part of said reflector by a

wavelength λ of a surface acoustic wave is set in a range of 0.01 to 0.05, and a duty ratio (w/p) of a part of the electrode finger decided based on a width w and an arraying cycle p of a part of the electrode finger is set to the value ranging from 0.6 to just below 1.0.

11. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 35° to 42° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalate is set as a surface of said substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of a part of an electrode finger constituting a part of said reflector by a wavelength λ of a surface acoustic wave is set in a range of 0.05 to 0.075, and a duty ratio (w/p) of a part of the electrode finger decided based on a width w and an arranging cycle of a part of the electrode finger is set to the value ranging from 0.6 to just below 1.0.

12. (Amended) An acoustic wave apparatus comprising:

a piezoelectric substrate mainly containing ~~tantalic acid lithium~~lithium tantalate;

an interdigital transducer including a conductor formed on said substrate; and

a reflector including a conductor formed on said substrate,

wherein a surface rotated in a range of 36° to 43° from a crystal Y axis around a crystal X axis of the ~~tantalic acid lithium~~ lithium tantalate is set as a surface of said

substrate, a standardized electrode thickness (h/λ) obtained by standardizing a thickness h of a part of an electrode finger constituting a part of said reflector by a wavelength λ of a surface acoustic wave is set in a range of 0.075 to 0.1, and a duty ratio (w/p) of a part of the electrode finger decided based on a width w and an arraying cycle p of a part of the electrode finger is set to the value ranging from 0.6 to just below 1.0.